

capacity, at the recommendation of Mr Telford, by the Parliamentary Commissioners, for fixing and determining the boundaries of the Scottish Counties. This undertaking he accomplished during the vacations, and performed it in the most able and satisfactory manner. His report, which is of considerable magnitude, is one of the most interesting documents ever published in that form. Shortly after this performance, he was again recommended by Mr Telford to the Commissioners for reclaiming the bogs of Ireland. In this situation he became well acquainted with the habits and wants of the Irish peasantry, and his reports and maps of the Irish bogs would alone have handed his name with credit to posterity. After completing the bog surveys, Mr Nimmo went to France, Germany, and Holland, and personally inspected the great works of those nations. On his return he was employed in the construction of Dunmore Harbour, a work of immense magnitude and utility, on a shore much exposed to the roll of the Atlantic, and where the depth of water at the extremity of the pier exceeds that of the Plymouth Breakwater. Mr Nimmo was employed by the Fishery Board in making surveys of the harbours of Ireland, and constructing harbours and piers all round the coast. He was also employed by the Ballast Board to make a chart of the whole coast, which is now published, and is executed with great skill and accuracy. He likewise compiled a book of sailing directions of St George's Channel and the Irish Coast, and, from the paucity of the present information on that subject, is of the greatest use to navigators. During the great distress in the year 1822, he was appointed engineer to the "Western District" of Ireland, and from the outlay of £167,000 up to 1830, he caused, by the improvement of land, and the formation of what may be termed new settlements, no less an increase of revenue in that district than £106,000 per annum. In reviewing Mr Nimmo's professional practice, its extent and variety are calculated to excite surprise. Upwards of thirty piers or harbours on the Irish Coast were built under his direction; also one in South Wales; he designed the Wellesley Bridge and Docks at Limerick; and latterly was engaged in Lancashire, projecting a railway from Liverpool to Leeds, and also the Manchester, Bolton, and Bury Railway. He was consulting engineer to the Duchy of Lancaster, the Mersey and Irwell Navigation, the St Helen's and Runcorn Gap Railway, the Preston and Wigan Railway, and Birkenhead and Chester Railway. In addition to his classical and mathematical knowledge, Mr Nimmo was well versed in modern languages, particularly French, German, Dutch, and Italian, and was also well acquainted with practical astronomy, chemistry, and geology. To the last named science he was much attached, and wrote an excellent paper, showing how it might

become available in navigation, which was published in the Transactions of the Royal Irish Academy. He was also the author of the article on Inland Navigation in Brewster's Cyclopaedia; also, in conjunction with Mr Telford, of that on Bridges; and, with Mr Nicholson, of that on Carpentry. Besides these he wrote several papers, for various periodicals, of the greatest interest and amusement. His evidence on the trial, which took place a few years ago, between the Corporation of Liverpool and the Mersey Company, is among the most interesting to engineers and practical mathematicians ever published. The Lord Chancellor was the counsel by whom Mr Nimmo was cross-examined, and the latter was undoubtedly the only engineer of the age who could at all have competed with Mr Brougham's knowledge of the higher mathematics and natural philosophy, on which the whole subject in dispute depended. He died at Dublin on 20th January 1832.

O

OSWALD, Sir JOHN, of Dunnikier, in Fifeshire, a distinguished officer, entered the army when very young, and was engaged in active service for nearly fifty-three years. He was appointed second lieutenant in the 7th Foot in March 1789; and, in July 1790, he embarked for Gibraltar. In January 1791 he was appointed captain in an independent company; and, two months after, was transferred to the Third Foot. In July 1793 he was nominated Brigade-Major to General Leland, which situation he resigned upon the grenadier company he commanded being ordered for foreign service. He joined the second battalion of Grenadiers under Lieutenant-Colonel Cradock in November 1793; and embarking for the West Indies with his battalion, which formed a part of the expedition under Sir Charles Grey, was present at the capture of the Islands of Martinique, St Lucia, and Guadaloupe, and personally engaged in the various actions and sieges of that arduous service. From thence he proceeded to St Domingo, where he remained in garrison till his company was drafted, and the officers and non-commissioned officers returned to England. In April 1797 he was appointed Lieutenant-Colonel in the 35th Foot, and in 1799 he embarked in the expedition to Holland. He was wounded in the action of September 19, and obliged to return to England for the recovery of his health. For his conduct on this occasion he was particularly thanked by the Duke of Gloucester, then Prince William, to whose brigade he belonged. In February 1800 he embarked for the Mediterranean with the corps under General Pigot. He landed in Minorca, and thence proceeded to the blockade of Malta, at the capture of which island he was present. He remained there till the conclusion of the peace of Amiens. On the recom-

menement of hostilities in 1804, he rejoined his regiment, which he commanded till May 1805, when he was compelled to return to England on account of private affairs, but remained for three months only. In October of the same year he had the brevet of Colonel; and, in February 1806, he joined the army under Sir James Craig. On the troops landing in Sicily he was appointed Commandant of Melazzo. In June the same year he commanded the advance destined to cover the disembarkation of the troops under Sir James Stuart in St Eufemia Bay; on which occasion he defeated a considerable body of the enemy who attacked his force. He was next appointed to the third brigade of that army, and commanded the same at the battle of Maida. Two days after the action, he marched with the same brigade into Lower Calabria, captured about three hundred French prisoners at Monteleone, with all the enemy's depot, and pushed, by forced marches, to the investment of Scylla Castle, the siege of which was confided to him. After a resistance of twenty days, he succeeded in subduing it. He then returned to Sicily with the army; and was, in November, honoured by General Fox with the appointment of Brigadier-General, but this nomination was cancelled by order of the Commander-in-Chief. In February 1807 he accompanied the corps under Major-General Fraser to Egypt; and was entrusted with the command of the party selected for assaulting the forts of Alexandria, when he stormed and carried the western lines and forts, taking a considerable quantity of artillery, and driving the Turks, who defended them, within the walls. The place capitulated two days after, and Colonel Oswald proceeded as second in command in the second (unsuccessful) expedition against Rosetta. Upon the return of the troops he was appointed Commandant of Alexandria. When the army withdrew to Sicily, he was made Commandant of Augusta by Sir John Moore; and in June 1808 appointed Brigadier-General in the Mediterranean. In October following he returned to Melazzo, where he was second in command of a large force, the charge of disciplining which in a great measure devolved upon him. In 1809 he had the command of the reserve of the army destined for Naples, and on the surrender of Procida, was appointed Commandant of that place. In September the same year he commanded the force employed to expel the enemy from certain of the Ionian Islands. Among these Zante, Cephalonia, Ithaca, and Cerigo, surrendered to the troops under his orders, whereby nearly 1500 of the enemy were taken or dispersed, and several valuable possessions added to the British dominions. In March 1810 he collected a force, amounting to about 2000 men, and proceeded against Santa Maura, where he landed on the 23d, and at the head of his troops drove the enemy from the town, and stormed the entrenchment. On the 16th April, after

eight days open trenches, the fortress capitulated. In this command, in addition to his military duties, General Oswald was charged with the whole civil administration of the different islands. He perfected the organization of the civil and military local government of each; established an advantageous intercourse with the neighbouring Turkish Pachas, and by his firm and equitable sway confirmed the favourable prepossessions which the Greeks generally entertained towards the British name and control. In February 1811 General Oswald was appointed Colonel of the Greek Light Infantry, a corps he had formed and disciplined chiefly from the prisoners of that nation. Upon quitting the Ionian Isles, he received from their respective inhabitants addresses expressive of their sense of the benefits which they had derived from his administration with an appropriate gift from each. In June 1811 he was promoted to the rank of Major-General; and in November of the same year was placed on the Staff of the Western District of England. During that command he succeeded in re-establishing the peace of Bristol, which had been endangered by the fury of a mob stimulated to mischief by seditious harangues. In August following General Oswald was nominated to the Peninsular Staff. He joined the army under the Marquis of Wellington, October 22, and accompanied it during the severe cavalry affair of the 23d and 24th. He was placed in command of the fifth division of the army, vacant in consequence of General Leith being wounded, and took the direction of the left of the army, at the moment when warmly engaged, both at Villa Morilla and Palencia. He continued to conduct that division during the remainder of the arduous retreat; and after placing it, with little comparative loss, in cantonments on the Douro, he returned for a short time to Britain. In May 1812 he rejoined the army on taking the field, when he resumed the command of the fifth division, forming a portion of the left column under the orders of General Sir Thomas Graham, now Lord Lynedoch. He directed that division during the masterly march through the North of Portugal, and the Spanish provinces of Zamora, Leon, and Palencia, till it crossed the Ebro. At the battle of Vittoria he had the command of all the troops composing the advance of the left column, with which he attacked and drove the enemy from the heights. He held the same command during the blockade of St Sebastian, until the return of Sir James Leith on the 30th August, when he continued his services as a volunteer, and accompanied the Lieutenant-General to the trenches on the occasion of the assault. On General Leith being again wounded, the command of the fifth division once more devolved upon General Oswald; but family affairs soon after obliged him to return to Britain. This distinguished officer was twice honoured with his Sovereign's gracious

acknowledgment of services, in which he held chief command; and three times for those in which he held a subordinate situation. Twice by name he obtained the thanks of Parliament; and he bore three medals, one for Maida, one for Vittoria, and one for the siege of St Sebastian. He was nominated a Knight Commander of the Bath at the enlargement of the Order in 1815; was advanced to the grade of Grand Cross, February 25, 1824, and was invested at Carlton House 9th June following. In July 1818 he obtained the Colonelcy of the Rifle Brigade. In August 1819 he received the brevet of Lieutenant-General, and the 9th October following was removed from the Rifle Brigade to the Colonelcy of the 35th Foot. In politics Sir John Oswald was a zealous Conservative, but highly esteemed by all parties. He died at Dunniker, June 8, 1840. He was twice married; first, in January 1812, to Charlotte, eldest daughter of the Rev. Lord Charles Murray-Aynsley, uncle to the Duke of Atholl, and that lady having died, February 22, 1827, he married, secondly, in October 1829, her cousin, Emily Jane, daughter of Lord Henry Murray, who survived him.

P

PAGE, DAVID, F. R. S. E., F. G. S., Edinburgh, was born at Lochgelly, Fifeshire, about the beginning of the present century. He was educated at the school of Auchterderran, and afterwards at the Universities of St Andrews and Edinburgh, with a view to entering the clerical profession, but Mr Page preferred to devote himself almost exclusively to literary pursuits. He studied the natural sciences; and geology and physical geography had for him peculiar attractions. On his return from a geological excursion in 1853, he became proprietor of the *Fifeshire Journal*, which he conducted for many years with great success, delivering at intervals a popular course of lectures on geology. Having disposed of the property of the *Fifeshire Journal* in 1857, Mr Page has ever since taken a warm interest in all social questions, and has devoted himself to various scientific pursuits, which have given him a high character amongst learned men. Besides giving great attention to the selection and accuracy of his geological observations, he has from time to time published their results in such forms as render them immediately useful—a practice which by degrees will doubtless be generally followed. His last work, so far as we know, is “The Philosophy of Geology—a Brief Review of the Aim, Scope, and Character of Geological Enquiry.” It is sad to think that our benefactors are so often overlooked and unrequited while they live, and that when they die attempts are made to atone for neglect by building monuments to their memory. We are so very apt to enthroned the great master teachers in our regard, and

to pay but slight attention to those who, amid much care and pain, may have assiduously led us to that elevation in which we caught the light of the greater spirits. We undoubtedly owe most to those who first have quickened our impulses, and taught us to seek after excellence. And yet we are too prone to worship confirmed greatness—to bow before the Lyells and the Murchisons, and forget the Pages and the Geikies, who taught us somewhat of the measure of these vast minds. Mr Page belongs to both the higher and the lower class of geologists, if we may so speak—he is one of the men who deal at once with facts and with principles, and who, on that account, stand as interpreters between the select few and the inquiring many. And we are glad that his claims for recognition have met with grateful acknowledgment generally. He has clearly shown his right to a seat among the first of geologists; but because he has chosen rather to simplify and interpret than to systematise on a grand scale, there was some danger that the highest place might be denied him. For, through his clear, simple, and masterly expositions, he has been a benefactor to not a few who were toiling wearily amid doubts and conflicting evidence; and he has, without doubt, done more to place the science on a firmer footing—to reconcile it as far as possible with our received notions of creation, and to popularise and spread a genuine love for the study of it than any man living. And there has always in his writings been evidence of so much labour and carefulness—such a manifest determination to test every fact by research, that he more than any other may rightly have assigned to him the title of “Guide to young students of Geology.” And, unlike some pretentious individuals who fancy that a general smattering of scientific knowledge will enable them to write popularly he knows and feels that the clearer and simpler he desires to write, the deeper he must think, and the more thorough must be his investigations. He is, therefore, himself an arduous and constant student. He is one of the ardent and hard-working disciples of science, whose example, when it is fully beheld, must be infectious. In this new volume Mr Page deals with the principles of the science, and proceeds to elucidate and simplify them much in the same way as in the last volume he dealt with the facts of the science, or the accumulated result of geological research. He then sought to arrange and label, so to speak, the various materials which form the subject of the science; now he attempts to enunciate the necessary principles under which these must be dealt with and interpreted. In a very lucid and yet compendious fashion he sets forth the aims of the geologist, defines succinctly as he goes the limits to which he must submit; and while pointing out the best principles for the practical geologist to follow, he indicates the results to which the science may ulti-